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Sequence Listing was accepted.

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Reviewer: Durreshwar Anjum

Timestamp: [year=2009; month=10; day=27; hr=12; min=35; sec=19; ms=79; ]

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Application No: 10563389 Version No: 3.0

Input Set:

Output Set:

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Finished: 2009-10-12 17:02:16.509  
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Total Errors: 0  
No. of SeqIDs Defined: 32  
Actual SeqID Count: 32

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# SEQUENCE LISTING

<110> CLAEISSON WELSH, LENA  
OLSSON, ANNA-KARIN

<120> AN ENDOGENOUS PEPTIDE AND ACTIVE SUBFRAGMENTS THEREOF

<130> 15665-0007US1

<140> 10563389

<141> 2009-10-12

<150> PCT/SE04/001091

<151> 2004-07-05

<150> SE 0301988-2

<151> 2003-07-07

<150> US 60/485,185

<151> 2003-07-07

<160> 32

<170> PatentIn Ver. 3.3

<210> 1

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<212> PRT

<213> Homo sapiens

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His	Pro	His
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<213> Homo sapiens

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Thr	Lys	Pro	Pro	Phe	Lys	Pro	His	Gly	Ser	Arg	Asp	His	His	His	Pro
			20					25						30	

His	Lys	Pro	His	Glu	His	Gly	Pro	Pro	Pro	Pro	Pro	Asp	Glu	Arg	Asp
			35					40						45	

His Ser His Gly Pro Pro Leu Pro Gln Gly Pro Pro Pro Leu Leu Pro  
50 55 60

Met Ser Cys Ser Ser Cys Gln His Ala Thr Phe Gly Thr Asn Gly Ala  
65 70 75 80

Gln Arg His Ser His Asn Asn Asn Ser Ser Asp Leu His Pro His Lys  
85 90 95

His His Ser His Glu Gln His Pro His Gly His His Pro His Ala His  
100 105 110

His Pro His Glu His Asp Thr His Arg Gln His Pro His Gly His His  
115 120 125

Pro His Gly His His Pro His Gly His His Pro His Gly His His Pro  
130 135 140

His Gly His His Pro His Cys  
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<213> Homo sapiens

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Val Ser Pro Thr Asp Cys Ser Ala Val Glu Pro Glu Ala Glu Lys Ala  
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Leu Asp Leu Ile Asn Lys Arg Arg Arg Asp Gly Tyr Leu Phe Gln Leu  
20 25 30

Leu Arg Ile Ala Asp Ala His Leu Asp Arg Val Glu Asn Thr Thr Val  
35 40 45

Tyr Tyr Leu Val Leu Asp Val Gln Glu Ser Asp Cys Ser Val Leu Ser  
50 55 60

Arg Lys Tyr Trp Asn Asp Cys Glu Pro Pro Asp Ser Arg Arg Pro Ser  
65 70 75 80

Glu Ile Val Ile Gly Gln Cys Lys Val Ile Ala Thr Arg His Ser His  
85 90 95

Glu Ser Gln Asp Leu Arg Val Ile Asp Phe Asn Cys Thr Thr Ser Ser  
100 105 110

Val Ser Ser Ala Leu Ala Asn Thr Lys Asp Ser Pro Val Leu Ile Asp  
115 120 125

Phe Phe Glu Asp Thr Glu Arg Tyr Arg Lys Gln Ala Asn Lys Ala Leu  
130 135 140

Glu Lys Tyr Lys Glu Glu Asn Asp Asp Phe Ala Ser Phe Arg Val Asp  
145 150 155 160

Arg	Ile	Glu	Arg	Val	Ala	Arg	Val	Arg	Gly	Gly	Glu	Gly	Thr	Gly	Tyr		
				165					170					175			
Phe	Val	Asp	Phe	Ser	Val	Arg	Asn	Cys	Pro	Arg	His	His	Phe	Pro	Arg		
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225					230					235					240		
Leu	Gly	His	Pro	Phe	His	Trp	Gly	Gly	His	Glu	Arg	Ser	Ser	Thr	Thr		
				245					250					255			
Lys	Pro	Pro	Phe	Lys	Pro	His	Gly	Ser	Arg	Asp	His	His	His	Pro	His		
			260					265					270				
Lys	Pro	His	Glu	His	Gly	Pro	Pro	Pro	Pro	Pro	Asp	Glu	Arg	Asp	His		
	275						280					285					
Ser	His	Gly	Pro	Pro	Leu	Pro	Gln	Gly	Pro	Pro	Pro	Leu	Leu	Pro	Met		
	290					295					300						
Ser	Cys	Ser	Ser	Cys	Gln	His	Ala	Thr	Phe	Gly	Thr	Asn	Gly	Ala	Gln		
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Arg	His	Ser	His	Asn	Asn	Asn	Ser	Ser	Asp	Leu	His	Pro	His	Lys	His		
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His	Ser	His	Glu	Gln	His	Pro	His	Gly	His	His	Pro	His	Ala	His	His		
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Pro	His	Glu	His	Asp	Thr	His	Arg	Gln	His	Pro	His	Gly	His	His	Pro		
	355						360					365					
His	Gly	His	His	Pro	His	Gly	His	His	Pro	His	Gly	His	His	Pro	His		
	370					375					380						
Gly	His	His	Pro	His	Cys	His	Asp	Phe	Gln	Asp	Tyr	Gly	Pro	Cys	Asp		
385					390					395					400		
Pro	Pro	Pro	His	Asn	Gln	Gly	His	Cys	Cys	His	Gly	His	Gly	Pro	Pro		
				405					410					415			
Pro	Gly	His	Leu	Arg	Arg	Arg	Gly	Pro	Gly	Lys	Gly	Pro	Arg	Pro	Phe		
			420				425						430				
His	Cys	Arg	Gln	Ile	Gly	Ser	Val	Tyr	Arg	Leu	Pro	Pro	Leu	Arg	Lys		
			435				440					445					
Gly	Glu	Val	Leu	Pro	Leu	Pro	Glu	Ala	Asn	Phe	Pro	Ser	Phe	Pro	Leu		
	450					455						460					

Pro His His Lys His Pro Leu Lys Pro Asp Asn Gln Pro Phe Pro Gln  
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Ser Val Ser Glu Ser Cys Pro Gly Lys Phe Lys Ser Gly Phe Pro Gln  
485 490 495

Val Ser Met Phe Phe Thr His Thr Phe Pro Lys  
500 505

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20 25

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His His His His His His His His His  
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Val Ser Pro Thr Asp Cys Ser Ala Val Glu Pro Glu Ala Glu Lys Ala  
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Leu Asp Leu Ile Asn Lys Arg Arg Arg Asp Gly Tyr Leu Phe Gln Leu  
20 25 30

Leu Arg Ile Ala Asp Ala His Leu Asp Arg Val Glu Asn Thr Thr Val  
35 40 45

Tyr Tyr Leu Val Leu Asp Val Gln Glu Ser Asp Cys Ser Val Leu Ser  
50 55 60

Arg Lys Tyr Trp Asn Asp Cys Glu Pro Pro Asp Ser Arg Arg Pro Ser  
65 70 75 80

Glu Ile Val Ile Gly Gln Cys Lys Val Ile Ala Thr Arg His Ser His  
85 90 95

Glu Ser Gln Asp Leu Arg Val Ile Asp Phe Asn Cys Thr Thr Ser Ser  
100 105 110

Val Ser Ser Ala Leu Ala Asn Thr Lys Asp Ser Pro Val Leu Ile Asp  
115 120 125

Phe Phe Glu Asp Thr Glu Arg Tyr Arg Lys Gln Ala Asn Lys Ala Leu  
130 135 140

Glu Lys Tyr Lys Glu Glu Asn Asp Asp Phe Ala Ser Phe Arg Val Asp  
145 150 155 160

Arg Ile Glu Arg Val Ala Arg Val Arg Gly Gly Glu Gly Thr Gly Tyr  
165 170 175

Phe Val Asp Phe Ser Val Arg Asn Cys Pro Arg His His Phe Pro Arg  
180 185 190

His Pro Asn Val Phe Gly Phe Cys Arg Ala Asp Leu Phe Tyr Asp Val  
195 200 205

Glu Ala Leu Asp Leu Glu Ser Pro Lys Asn Leu Val Ile Asn Cys Glu  
210 215 220

Val Phe Asp Pro Gln Glu His Glu Asn Ile Asn Gly Val Pro Pro His  
225 230 235 240

<210> 7

<211> 320

<212> PRT

<213> Homo sapiens

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Val Ser Pro Thr Asp Cys Ser Ala Val Glu Pro Glu Ala Glu Lys Ala  
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Leu Asp Leu Ile Asn Lys Arg Arg Arg Asp Gly Tyr Leu Phe Gln Leu  
20 25 30

Leu Arg Ile Ala Asp Ala His Leu Asp Arg Val Glu Asn Thr Thr Val  
35 40 45

Tyr Tyr Leu Val Leu Asp Val Gln Glu Ser Asp Cys Ser Val Leu Ser  
50 55 60

Arg Lys Tyr Trp Asn Asp Cys Glu Pro Pro Asp Ser Arg Arg Pro Ser  
65 70 75 80

Glu Ile Val Ile Gly Gln Cys Lys Val Ile Ala Thr Arg His Ser His  
85 90 95

Glu Ser Gln Asp Leu Arg Val Ile Asp Phe Asn Cys Thr Thr Ser Ser

100	105	110
Val Ser Ser Ala Leu Ala Asn Thr Lys Asp Ser Pro Val Leu Ile Asp		
115	120	125
Phe Phe Glu Asp Thr Glu Arg Tyr Arg Lys Gln Ala Asn Lys Ala Leu		
130	135	140
Glu Lys Tyr Lys Glu Glu Asn Asp Asp Phe Ala Ser Phe Arg Val Asp		
145	150	155
Arg Ile Glu Arg Val Ala Arg Val Arg Gly Gly Glu Gly Thr Gly Tyr		
165	170	175
Phe Val Asp Phe Ser Val Arg Asn Cys Pro Arg His His Phe Pro Arg		
180	185	190
His Pro Asn Val Phe Gly Phe Cys Arg Ala Asp Leu Phe Tyr Asp Val		
195	200	205
Glu Ala Leu Asp Leu Glu Ser Pro Lys Asn Leu Val Ile Asn Cys Glu		
210	215	220
Val Phe Asp Pro Gln Glu His Glu Asn Ile Asn Gly Val Pro Pro His		
225	230	235
Leu Gly His Pro Phe His Trp Gly Gly His Glu Arg Ser Ser Thr Thr		
245	250	255
Lys Pro Pro Phe Lys Pro His Gly Ser Arg Asp His His His Pro His		
260	265	270
Lys Pro His Glu His Gly Pro Pro Pro Pro Pro Asp Glu Arg Asp His		
275	280	285
Ser His Gly Pro Pro Leu Pro Gln Gly Pro Pro Pro Leu Leu Pro Met		
290	295	300
Ser Cys Ser Ser Cys Gln His Ala Thr Phe Gly Thr Asn Gly Ala Gln		
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20 25 30
Leu Arg Ile Ala Asp Ala His Leu Asp Arg Val Glu Asn Thr Thr Val
35 40 45

Tyr	Tyr	Leu	Val	Leu	Asp	Val	Gln	Glu	Ser	Asp	Cys	Ser	Val	Leu	Ser	50	55	60	
Arg	Lys	Tyr	Trp	Asn	Asp	Cys	Glu	Pro	Pro	Asp	Ser	Arg	Arg	Pro	Ser	65	70	75	80
Glu	Ile	Val	Ile	Gly	Gln	Cys	Lys	Val	Ile	Ala	Thr	Arg	His	Ser	His	85	90	95	
Glu	Ser	Gln	Asp	Leu	Arg	Val	Ile	Asp	Phe	Asn	Cys	Thr	Thr	Ser	Ser	100	105	110	
Val	Ser	Ser	Ala	Leu	Ala	Asn	Thr	Lys	Asp	Ser	Pro	Val	Leu	Ile	Asp	115	120	125	
Phe	Phe	Glu	Asp	Thr	Glu	Arg	Tyr	Arg	Lys	Gln	Ala	Asn	Lys	Ala	Leu	130	135	140	
Glu	Lys	Tyr	Lys	Glu	Glu	Asn	Asp	Asp	Phe	Ala	Ser	Phe	Arg	Val	Asp	145	150	155	160
Arg	Ile	Glu	Arg	Val	Ala	Arg	Val	Arg	Gly	Gly	Glu	Gly	Thr	Gly	Tyr	165	170	175	
Phe	Val	Asp	Phe	Ser	Val	Arg	Asn	Cys	Pro	Arg	His	His	Phe	Pro	Arg	180	185	190	
His	Pro	Asn	Val	Phe	Gly	Phe	Cys	Arg	Ala	Asp	Leu	Phe	Tyr	Asp	Val	195	200	205	
Glu	Ala	Leu	Asp	Leu	Glu	Ser	Pro	Lys	Asn	Leu	Val	Ile	Asn	Cys	Glu	210	215	220	
Val	Phe	Asp	Pro	Gln	Glu	His	Glu	Asn	Ile	Asn	Gly	Val	Pro	Pro	His	225	230	235	240
Leu	Gly	His	Pro	Phe	His	Trp	Gly	Gly	His	Glu	Arg	Ser	Ser	Thr	Thr	245	250	255	
Lys	Pro	Pro	Phe	Lys	Pro	His	Gly	Ser	Arg	Asp	His	His	His	Pro	His	260	265	270	
Lys	Pro	His	Glu	His	Gly	Pro	Pro	Pro	Pro	Pro	Asp	Glu	Arg	Asp	His	275	280	285	
Ser	His	Gly	Pro	Pro	Leu	Pro	Gln	Gly	Pro	Pro	Pro	Leu	Leu	Pro	Met	290	295	300	
Ser	Cys	Ser	Ser	Cys	Gln	His	Ala	Thr	Phe	Gly	Thr	Asn	Gly	Ala	Gln	305	310	315	320
Arg	His	Ser	His	Asn	Asn	Asn	Ser	Ser	Asp	Leu	His	Pro	His	Lys	His	325	330	335	
His	Ser	His	Glu	Gln	His	Pro	His	Gly	His	His	Pro	His	Ala	His	His	340	345	350	

Pro His Glu His Asp Thr His Arg Gln His Pro His Gly His His Pro  
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His Gly His His Pro His Gly His His Pro His Gly His His Pro His  
370 375 380

Gly His His Pro His Cys  
385 390

<210> 9  
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His Leu Gly His Pro Phe His Trp Gly Gly His Glu Arg Ser Ser Thr  
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Thr Lys Pro Pro Phe Lys Pro His Gly Ser Arg Asp His His His Pro  
20 25 30

His Lys Pro His Glu His Gly Pro Pro Pro Pro Asp Glu Arg Asp  
35 40 45

His Ser His Gly Pro Pro Leu Pro Gln Gly Pro Pro Pro Leu Leu Pro  
50 55 60

Met Ser Cys Ser Ser Cys Gln His Ala Thr Phe Gly Thr Asn Gly Ala  
65 70 75 80

Gln Arg His Ser His Asn Asn Asn Ser Ser Asp Leu His Pro His Lys  
85 90 95

His His Ser His Glu Gln His Pro His Gly His His Pro His Ala His  
100 105 110

His Pro His Glu His Asp Thr His Arg Gln His Pro His Gly His His  
115 120 125

Pro His Gly His His Pro His Gly His His Pro His Gly His His Pro  
130 135 140

His Gly His His Pro His Cys  
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Gln Gly His Cys Cys His Gly His Gly

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Arg Pro Phe His Cys Arg Gln Ile Gly Ser  
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<210> 12

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20 25 30

Lys Pro Asp Asn